

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number		
			Filing Date		
			First Named Inventor	Oleg GRUDIN et al.	
			Art Unit		
			Examiner Name		
Sheet	1	of	2	Attorney Docket Number	14836-8US-2 AD/mb

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
COH		US-4,472,239	18 Sep. 1984	Robert E. Higashi et al.	
		US-5,635,893	3 June 1997	Renwin J. Yee et al.	
		US-5,466,484	14 Nov. 1995	Gary L. Spraggins et al.	
		US-5,679,275	21 Oct. 1997	David M. Susak et al.	
		US-4,870,472	26 Sep. 1989	Robert L. Vyne	
		US-6,184,494	6 Feb. 2001	Arto Isokoski et al.	
		US-5,742,307	21 Apr. 1998	William G. Hawkins	
		US-4,210,996	Jul. 8, 1980	Yoshihito Amemiya et al.	
		US-4,782,202	Nov. 1, 1988	Takafumi Endo et al.	
		US-2002/033519	Mar. 21, 2002	Jeffrey A. Babcock et al.	
COH		US-6,255,185	Jul. 3, 2001	Douglas D. Coolbaugh et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
COH		WO03/023794	Mar. 20, 2003	Oleg Grudin et al.		
		EP 1 275 967	Jan. 15, 2003	Honeywell Inc.		

Examiner Signature	TU HOANG	Date Considered	1/19/06
--------------------	----------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449PTO		Complete If Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number			
		Filing Date			
		First Named Inventor	Oleg GRUDIN et al.		
		Art Unit			
		Examiner Name			
Sheet	2	of	2	Attorney Docket Number	14836-8US-2 AD/mb

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Pulse Current Trimming of Polysilicon Resistors, D.W. Feldbaumer et al., IEEE Transactions on Electron Devices, IEEE, N.Y., USA, Vol. 42, N° 4, pp. 689-696.	
		Dopant Segregation in Polycrystalline Silicon, Mandurah et al., Journal Appl. Phys. 51(11), November 1980, pp. 5755-5763.	
		Spin-on Nanoparticle Tin Oxide for Microhotplate Gas Sensors, R. E. Cavicchi et al. Sensor and Actuators B. Elsevier Sequoia, S.A. Lausanne, CH, Vol. 77, No. 1-2, June 15, 2001, pp. 145-154.	
		A characterization of the Thermal Parameters of Thermally Driven Polysilicon Microbridge Actuators Using Electrical Impedance Analysis, Jae-Youl Lee et al., Sensors and Actuators A, Elsevier Sequoia S.A., Lausanne, CH. Vol. 75, No. 1, May 4, 1999, pp. 86-92.	
		Fabrication of Thermal-Isolation Structure for Microheater Elements Applicable to Fingerprint Sensors, Hans Ji-Song et al., Sensors and Actuators A, Elsevier Sequoia S.A., Lausanne, CH, Vol. 100, No. 1, Aug. 15, 2002, pp. 114-122.	

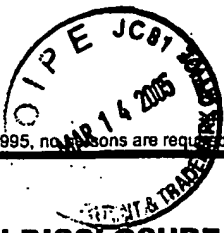
Examiner Signature	TU HOANO	Date Considered	1/19/06
--------------------	----------	-----------------	---------

*EXAMINER if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449PTO			Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Application Number	10796, 420	
			Filing Date	March 10, 2004	
			First Named Inventor	Oleg GRUDIN et al.	
			Art Unit	3742	
			Examiner Name	(unknown)	
Sheet	1	of	3	Attorney Docket Number	14836-8US-2 AD/mb

#U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
COB		US-6,097,276	Aug. 1, 2000	Van Den Broek et al.	
		US-5,844,122	Dec. 1, 1998	Kato	
		US-5,635,893	Jun. 3, 1997	Spraggins et al.	
		US-5,493,148	Feb. 20, 1996	Ohata et al.	
		US-5,460,040	Oct. 24, 1995	Tada et al.	
		US-4,902,959	Feb. 20, 1990	Brokaw	
		US-5,757,264	May 26, 1998	Petit	
		US-4,717,886	Jan. 5, 1988	Davis et al.	
		US-4,683,442	Jul. 28, 1987	Vyne	
		US-4,606,781	Aug. 19, 1986	Vyne	
		US-5,110,758	May 5, 1992	Baskett	
	GIA		US-5,563,549	Oct. 8, 1996	Shieh
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
COB		WO 00/21196	Apr. 13, 2000	Honeywell Inc.		

Examiner Signature	TU HOANG	Date Considered	1/19/06
-----------------------	----------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/796, 420
		Filing Date	March 10, 2004
		First Named Inventor	Oleg GRUDIN et al.
		Art Unit	3742
		Examiner Name	(unknown)
		Attorney Docket Number	14836-8US-2 AD/mb
Sheet	2	of	3

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Constant Voltage Trimming of Heavily Doped Polysilicon Resistors, Japan Journal Appl. Phys. Vol. 34, Part 1, No. 1, January 1995, pp. 48-53.	
		Pulse Current Trimming of Polysilicon Resistors, Transactions of Electron Devices, IEEE, Vol. 42, N° 4, April 1995, pp. 689-695.	
		Change in Temperature Coefficient of Resistance of Heavily Doped Polysilicon Resistors Caused by Electrical Trimming, Japan Journal Appl. Phys. Vol. 35, Part 1, No. 8, August 1995, pp. 4209-4215.	
		Theory and Application of Polysilicon Resistor Trimming, Solid-State Electronics, Vol. 38, N° 11, 1995, pp. 1861-1869.	
		Electrical Trimming of Ion-Beam Sputtered Polysilicon Resistors by High Current Pulses, IEEE Transactions on Electron Devices, Vol. 41, No. 8, August 1994, pp. 1429-1434.	
		Electrical Trimming of Heavily Doped Polycrystalline Silicon Resistors, IEEE Transactions on Electron Devices, Vol. ED-26, No. 11, November 1979, pp. 738-742.	
		A Monolithic 14Bit D/A Converter Fabricated with a New Trimming Technique (DOT), IEEE, Journal of Solid-State Circuits, Vol. SC-19, N° 5, October 1984, pp. 802-807.	
		Precision Electrical Trimming of Very Low TCR Poly-SiGe Resistors, IEEE Electron Device Letters, Vol. 21, No. 6, June 2000, pp. 283-286.	
		1/f Noise Transformation that Accompanies the Trimming of Polycrystalline Silicon Layers, Solid State Phenomena, Vols. 51-52 (1996) Scitec Publications, Switzerland, pp. 391-396.	
		Micromachined Thermal Radiation Emitter from a Commercial CMOS Process, IEEE Electron Devices Letters, Vol. 12, No. 2, February 1991, pp. 57-59.	

Examiner Signature	TU HOANG	Date Considered	1/19/06
--------------------	----------	-----------------	---------

*EXAMINER if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.88. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449PTO		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/798, 420		
		Filing Date	March 10, 2004		
		First Named Inventor	Oleg GRUDIN et al.		
		Art Unit	3742		
		Examiner Name	(unknown)		
Sheet	3	of	3	Attorney Docket Number	14836-8US-2 AD/mb

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		CMOS-Compatible High-Temperature Micro-Heater: Microstructure Release and Testing, Can. J. Elect & Comp. Eng., Vol. 25, No. 1, January 2000, pp. 002-006.	
		Reliability Study of Polysilicon for Microhotplates, 1994, Dept. of Electrical and Computer Engineering, N.R. Swart et al., University of Waterloo, Waterloo, Ont. CANADA, pp. 119-122,	
		CMOS Thermally Isolated Heater Structure as a Substrate for Semiconductor Gas Sensors, S. Wessel et al, Energy Research Institute, pp. 1.6.1 to 1.6.8.	
		A Microstructure for Measurement of Thermal Conductivity of Polysilicon Thin Films, Friedemann Völklein et al., Jour. of Microelectromechanical Systems, Vol. 1, N° 4, Dec. 1992, pp. 193-196.	
		Electrical and Optical Characteristics of Vacuum-Sealed Polysilicon Microlamps, Carlos H. Mastrangelo et al., IEEE Transactions on Electron Devices, Vol. 39, N° 6, June 1992, pp. 1363-1374.	

Examiner Signature	TU HANG	Date Considered	1/19/06
--------------------	---------	-----------------	---------

*EXAMINER if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.